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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/681,322

10/09/2003

Shinichi Ueda

108113-00001

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11/03/2006

ARENT FOX PLLC

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EXAMINER

NGUYEN, NAM V

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/681,322

Applicant(s)

UEDA ET AL.

Examiner

Nam V. Nguyen

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-15 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) ✓
- Paper No(s)/Mail Date 01/22/04

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The application of Ueda et al. for a "radio type locking/unlocking device" filed October 09, 2003 has been examined.

This application claims foreign priority based on the application P2002-296775 filed October 09, 2002 in Japan. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a) – (d), which papers have been placed of record in the file.

A preliminary amendment to the claims 1, 3-4, 6-8, 10-12 and 14 has been entered and made of record.

Claims 1-15 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6/1 10-12, 13-15/8, 13-15/10
Claims 1, 6-8 and ~~10-15~~ are rejected under 35 U.S.C. 102(e) as being anticipated by

Furuta et al. (US# 6,218,929).

Referring to claim 7, Furuta et al discloses a door entry control by wireless communication as recited in claim 7. See Figures 1 to 4 and respective portions of the apparatus and method.

Furuta et al discloses a wireless locking/unlocking device (i.e. a door entry control system) (column 2 lines 5 and 21; see Figure 1) comprising:

transmitter (203) (i.e. a transmitter/receiver circuit) for sending a request signal (i.e. an interior radio signal) within the vehicle compartment (i.e. an interior area) (column 5 lines 24 to 31; see Figures 1 and 4);

receiver (203) (i.e. a receiver of a transmitter/receiver circuit) for receiving the response signal (i.e. a return signal) sent from a portable unit (1) (i.e. a card) which receives the request signal (column 5 lines 31 to 36); and

determining means (207) (i.e. a microcomputer) which determines whether or not the portable unit (1) exists within the vehicle compartment (i.e. the interior area) based on whether or not the response signal is detected (column 5 lines 36 to 38),

wherein if it is determined that the portable unit (1) exists within the vehicle compartment, sequent transmission of request signals is prohibited (Step S7) (column 5 lines 36 to 42; see Figure 4).

Referring to claim 1, Furuta et al. discloses a wireless locking/unlocking device for a vehicle, to the extend of Claim 7 above, and further including:

position detector (3) (i.e. a holding case) for detecting the position of the portable unit (1) depending on whether or not the response signal (i.e. a return signal) received by the vehicle side receiver (203) coincides with ID information (i.e. an ID code) stored in the vehicle (column 5 lines 36 to 40; see Figures 1 and 4);

controller (207) for outputting a locking signal based on a detection result of the position detector (3) (column 5 lines 43 to 60; see Figures 1 and 4); and

an actuator (208) for bringing a door lock mechanism into locking state in response to the locking signal (column 5 lines 57 to 60; see Figure 1);

an all-door closing detector (211) which detects that all the doors are closed after a condition that at least one door is open and generates an all-door closing detecting signal (column 3 lines 63 to 67), wherein the vehicle side transmitter (203) sends the request signal in response to the all-door closing detecting signal (211) and if it is detected that the portable unit (1) exists within the vehicle compartment by the position detector (3), stops sending of sequent request signals (column 5 lines 57 to 60; see Figure 1), and if it is detected that the portable unit (1) exists within the vehicle compartment by the position detector (3), the controller prohibits an output of the locking signal (column 6 lines 48 to 57).

Referring to claim 8, Furuta et al. discloses a wireless locking/unlocking device for a vehicle, to the extend of Claim 7 above, and further including:

a closing timing detector for detecting that the opening/closing body is just closed, wherein the transmitter sends a request signal to the vehicle compartment in response to closing of the opening/closing body detected by the closing timing detector (column 5 lines 10 to 24; see Figure 4)

Referring to claim 6, Furuta et al. discloses a wireless locking/unlocking device according to claim 1, further comprising a door opening detector (210) for detecting a change of state that at least one of vehicle doors is changed from its closing state to its opening state (column 3 lines 63 to column 4 line 2; see Figure 1); third vehicle side transmitter (i.e. one of the transmitter at the vehicle door) for sending the request signal to the predetermined zones within the vehicle compartment and around the vehicle in response to the door opening state detected by the door opening detector; and third position detector which detects the position of the portable unit in response to the door opening state detected by the door opening detector depending on whether or not the response signal coincides with ID information stored in the vehicle, wherein the vehicle side transmitter, if the third position detector detects an existence of the portable unit within the vehicle compartment and around the vehicle, sends the request signal to at least the predetermined zone within the vehicle compartment (column 6 lines 47 to 67).

Referring to claim 10, Furuta et al. discloses a wireless locking/unlocking device to Claim 8, wherein when the response signal responding to the request signal sent within the vehicle compartment is not received, the transmitter sends the request signal to a predetermined

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zone (i.e. area 42 or 44) around the vehicle intermittently, wherein and if the response signal responding to the request signal sent to the predetermined zone is not received, the transmitter sends the request signal again (i.e. three times) to the vehicle compartment, and the opening/closing body (i.e. 40 or 43) is locked under a condition that the response signal responding to the request signal sent again within the vehicle compartment is not received (column 3 lines 54 to 65; column 6 lines 52 to 67; column 9 lines 6 to 18; see Figures 5, 7A and 10).

Referring to claim 11, Furuta et al. discloses a wireless locking/unlocking device according to any one of claims 8 or 10, Furuta et al. disclose further comprising opening timing detector (210) for detecting that the opening/closing body is just opened (column 3 lines 63 to 67; see Figure 1), wherein the transmitter sends the request signal to predetermined zones within the vehicle compartment and around the vehicle in response to opening of the opening/closing body detected by the opening timing detector and under a condition that the response signal responding to the request signal sent to the predetermined zones within the vehicle compartment and around the vehicle is received, sends the request signal to the vehicle compartment in response to closing of the opening/closing body (column 6 lines 48 to 57; see Figure 4).

Referring to claim 12, Furuta et al. discloses a wireless locking/unlocking device according to claim 11, Furuta et al. disclose wherein the opening timing detector detects the moment that any door of a vehicle is opened when all the doors have previously been closed, and

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the closing timing detector detects the moment that the last opened door is closed so that all the door are closed (column 3 lines 63 to column 4 line 12).

Referring to claim 13, Furuta et al. discloses a wireless locking/unlocking device according to any one of claims 8 or 10, Furuta et al. disclose wherein the transmitter prohibits sending of the request signal in response to an operation signal of a switch disposed within the vehicle compartment (column 5 lines 36 to 60; see Figures 1 and 4)

Referring to claim 14, Furuta et al. discloses a wireless locking/unlocking device according to any one of claims 8 or 10, Furuta et al. disclose further comprising locking/unlocking detector for detecting the locking state and unlocking state of the opening/closing body, wherein the transmitter prohibits sending of the request signal corresponding to a detection of a locking state (column 5 lines 36 to 60; see Figures 1 and 4)

Referring to claim 15, Furuta et al. discloses a wireless locking/unlocking device according to any one of claims 8 or 10, Furuta et al. disclose further comprising a timer which starts time counting in response to the detected closing timing of the opening/closing body, wherein the transmitter prohibits sending of the request signal when the timer counts a predetermined time (column 5 lines 10 to 24; see Figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6/2, 11-15/9
Claims 2, 9 and ~~9-11-9-15~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over
Furuta et al. (US# 6,218,929) in view of Onuma et al. (US# 6,798,337).

Referring to claim 2, Furuta et al. discloses a wireless locking/unlocking device to Claim 1, however, Furuta et al. did not explicitly disclose wherein the vehicle side transmitter sends the request signal to a predetermined zone within the vehicle compartment and a predetermined zone around the vehicle alternately and repeatedly multiple times.

In the same field of endeavor of vehicular electronic key system, Onuma et al. teach that a vehicle side transmitter (2 to 4) sends the request signal to a predetermined zone within the vehicle compartment (i.e. an interior) and a predetermined zone around the vehicle (i.e. around the doors) alternately and repeatedly multiple times (column 7 lines 41 to 49; column 8 lines 52 to 25; see Figures 1, 5 and 10) in order to output a warning signal mislaying electronic key to the user.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need for sending a request signal to a predetermined zones multiple times taught by Onuma et al. an automatic door locking and unlocking of a vehicular entry control

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system of Furuta et al. because sending a request signal to a predetermined zones multiple times would improve a reliable communication and certainly lock and unlock door operation of a door entry control system.

Referring to claim 9, Furuta et al. discloses a wireless locking/unlocking device to Claim 8, Onuma et al. disclose wherein when a response signal responding to the request signal sent within the vehicle compartment is not received, the transmitter sends a request signal to a predetermined zone (i.e. area 42 or 44) around the vehicle intermittently and the opening/closing body (i.e. 40 or 43) is locked under a condition that the response signal responding to the request signal sent to the predetermined zone is not received (column 3 lines 54 to 65; column 6 lines 52 to 67; see Figures 5 and 7A) in order to verify all the area of the vehicle. Therefore, it would have been obvious to a person of ordinary skill in the art to recognize the need for sending a request signal around the vehicle taught by Onuma et al. an automatic door locking and unlocking of a vehicular entry control system of Furuta et al.

Referring to claims 9/11-15, Furuta et al. in view of Onuma et al. discloses a wireless locking/unlocking device to Claim 9, the claims 11-15 already addressed above therefore claims 11-15 are also rejected for the same obvious reasons given with respect to claim 9.

Allowable Subject Matter

Claims 3-5 and ~~3-5~~^{6/3-5} are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 3, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations a second vehicle side transmitter for, after the position of the portable unit is detected by the position detector based on the request signal, sending the request signal to the predetermined zones within the vehicle compartment and around the vehicle; and second position detector for detecting the position of the portable unit depending on whether or not the response signal in response to the request signal sent by the second vehicle side transmitter coincides with ID information inherent of the vehicle, wherein the second vehicle side transmitter, if it is detected that the portable unit does not exist within the vehicle compartment by the position detector, sends the request signal to the predetermined zones within the vehicle compartment and around the vehicle intermittently and the controller, if it is detected that the portable unit does not exist at least outside the vehicle by the second position detector when it is detected that the portable unit does not exist within the vehicle compartment by the position detector, outputs the locking signal.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Boschini (US# 5,499,022) discloses a remote control system for locking and unlocking doors and other opening in a passenger space, in particular in a motor vehicle.

Proefke et al. (US# 6,386,447) disclose a smart card with card in vehicle warning.

Dais et al. (US# 6,624,741) disclose a vehicle locking system.

Masudaya (US# 6,707,375) discloses a keyless entry apparatus capable of selectively controlling only member to be controlled closest to user.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 571-272-3061. The examiner can normally be reached on Mon-Fri, 8:30AM - 5:00PM.

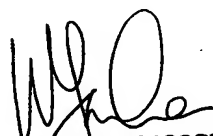
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571- 272-7308. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nam Nguyen
October 18, 2006



WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
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